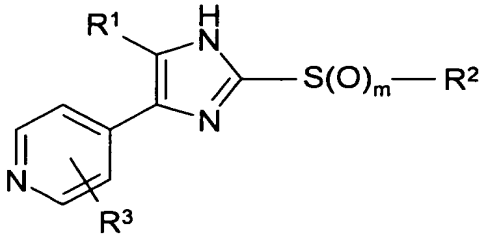
# WE CLAIM

1. A 2-thio-substituted imidazole derivative of the formula I



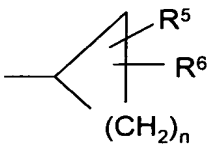
in which

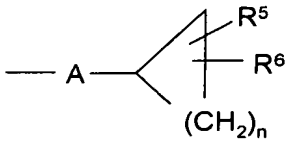
$R^1$ is $C_1$-$C_6$-alkyl, $C_3$-$C_7$-cycloalkyl or aryl which is unsubstituted or substituted by a halogen atom, by $C_1$-$C_6$-alkyl or by halo-$C_1$-$C_6$-alkyl;

$R^2$ is selected from the group consisting of

a) aryl-$C_1$-$C_4$-alkyl, where the aryl radical may have one, two or three substituents independently of one another selected from the group consisting of $C_1$-$C_6$-alkyl, $C_1$-$C_6$-alkoxy, halogen, $C_1$-$C_6$-alkylsulfanyl, $C_1$-$C_6$-alkylsulfinyl, $C_1$-$C_6$-alkylsulfonyl and hydroxyl, and

b) $C_1$-$C_6$-alkyl which is unsubstituted or substituted by CN or halogen;

c) 

d) 

$R^3$ is selected from the group consisting of

a) $NR^4R^{10}$;

b) $NR^7COR^{10}$;

c) $NR^7COOR^{10}$;

d) $NR^7CONR^7R^{10}$;

e) $NR^7CONR^7COR^{10}$;

f) $OR^{10}$;

g) $S(O)_mR^{10}$

h) halogen;

i) OH;

j) $N_3$

k) $NH_2$

l) SH;

where $R^3$ is not OH, halogen, $C_1$-$C_6$-alkylthio or $C_1$-$C_6$-alkoxy if $R^2$ is phenyl-$C_1$-$C_4$-alkyl and the phenyl radical has a $C_1$-$C_6$-alkylsulfanyl, $C_1$-$C_6$-alkylsulfinyl or $C_1$-$C_6$-alkylsulfonyl substituent;

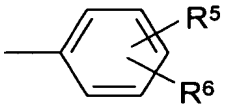
$R^4$ is H or a physiologically cleavable group,

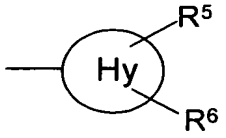
$R^5$ and $R^6$, which may be identical or different, are H, halogen, OH, $C_1$-$C_6$-alkoxy, $C_1$-$C_6$-alkyl, halo-$C_1$-$C_6$-alkyl, $C_1$-$C_6$-alkylsulfanyl, $NH_2$, $C_1$-$C_6$-alkylamino or di-$C_1$-$C_6$-alkylamino;

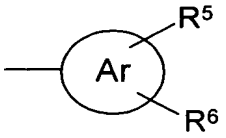
$R^7$ is $R^4$, $C_1$-$C_6$-alkyl or benzyl;

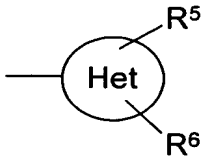
$R^{10}$ has one of the meanings below:

a) A — B

b) 

c) 

d) 

e) 

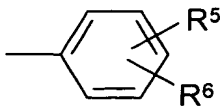
f) $C_1$-$C_6$-alkyl which is substituted by 2 or 3 phenyl groups;

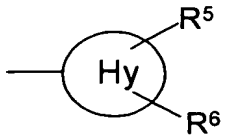
g) Trifluoromethyl

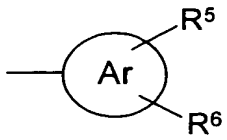
A is straight-chain or branched $C_1$-$C_6$-alkylene, $C_2$-$C_6$-alkenylene or $C_3$-alkynylene;

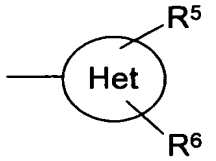
B is selected from the group consisting of

a) H

b) 

c) 


d) 


e) 


f) $OC_1$-$C_6$-alkyl;

g) $NR^{11}R^{12}$;

h) OH;

i) halogen;

j) $C_1$-$C_6$-alkylsulfanyl

$R^{11}$ and $R^{12}$, which may be identical or different, are H, $C_1$-$C_6$-alkyl or phenyl;

Hy is a 3- to 10-membered non-aromatic mono-, bi- or tricyclic carbocycle which may or may not be fused with a benzene ring;

Ar is a 5- or 6-membered aromatic heterocycle which has 1, 2 or 3 heteroatoms independently of one another selected from the group consisting of O, S and N and which may or may not be fused with a benzene ring;

Het is a 5- or 6-membered non-aromatic heterocycle which has 1, 2 or 3 heteroatoms independently of one another selected from the group consisting of O, S and N, which may or may not be fused with a benzene ring and which may or may not be bridged bicyclically or tricyclically;

m is 0.1 or 2;

n is 1, 2, 3, 4 or 5;

2. The compound as claimed in claim 1 of the formula I

in which

$R^1$ is $C_1$-$C_6$-alkyl, $C_3$-$C_7$-cycloalkyl or aryl which may or may not be substituted by a halogen atom;

$R^2$ is selected from the group consisting of

a) aryl-$C_1$-$C_4$-alkyl, where the aryl radical may have one, two or three substituents independently of one another selected from the group consisting of $C_1$-$C_6$-alkyl, $C_1$-$C_6$-alkoxy, halogen, $C_1$-$C_6$-alkylsulfanyl, $C_1$-$C_6$-alkylsulfinyl, $C_1$-$C_6$-alkylsulfonyl and hydroxyl, and

b) $C_1$-$C_6$-alkyl which may or may not be substituted by CN; and

c) $C_3$-$C_7$-cycloalkyl;

$R^3$ is selected from the group consisting of

a) $NR^4R^{10}$

b) $NR^7COR^{10}$.

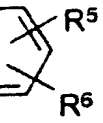
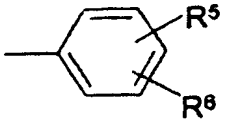
c) halogen and

d) $C_1$-$C_6$-alkoxy,

e) $C_1$-$C_6$-alkylthio

where $R^3$ is not OH, halogen, $C_1$-$C_6$-alkylthio or $C_1$-$C_6$-alkoxy if $R^2$ is phenyl-$C_1$-$C_4$-alkyl the phenyl radical has a $C_1$-$C_6$-alkylsulfanyl, $C_1$-$C_6$-alkylsulfinyl or $C_1$-$C_6$-alkylsulfonyl substituent;

$R^4$ is H;

$R^{10}$ is —A—  or 

or, if $R^3$ is $NR^7COR^{10}$ is $R^8$,

$R^5$ and $R^6$, which may be identical or different, are H, halogen, $C_1$-$C_6$-alkoxy or $C_1$-$C_6$-alkyl;

$R^7$ is H, $C_1$-$C_6$-alkyl or benzyl;

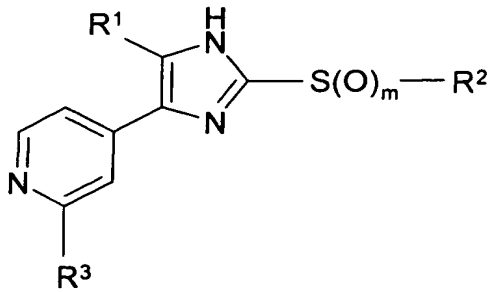
$R^8$ is $C_1$-$C_4$-alkyl, $C_3$-$C_6$-cycloalkyl or phenyl, where the phenyl group may have one or two substituents independently of one another selected from the group consisting of $C_1$-$C_4$-alkyl, $C_1$-$C_4$-alkoxy and halogen;

A is straight-chain or branched $C_1$-$C_6$-alkylene, $C_2$-$C_6$-alkenylene or $C_3$-alkynylene and

m is 0.1 or 2

or a tautomer, an optic isomer or a physiologically acceptable salt thereof.

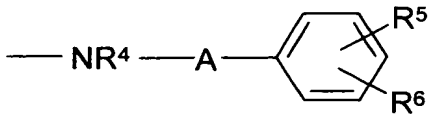
3. The compound as claimed in claim 1 or 2 of the formula Ia



Ia

in which $R^1$, $R^2$, $R^3$ and m are as defined in claim 1.

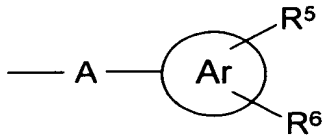
4. The compound as claimed in claim 1 or 2 where $R^3$ is




where A, $R^5$ and $R^6$ are as defined in claim 1.

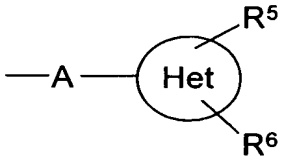
5. The compound as claimed in claim 1 of the formula I in which $R^{10}$ is one of the radicals below:

a)



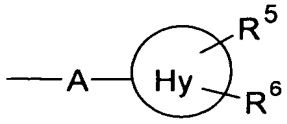

where Ar is a 5- or 6-membered aromatic heterocycle which has a heteroatom selected from the group consisting of N, O and S; A is $C_1$-$C_3$-alkylene and may be substituted by a phenyl radical and $R^5$ and $R^6$ are H;

b)




where Het is a 5- or 6-membered non-aromatic heterocycle which has an O or N heteroatom; A is $C_1$-$C_3$-alkylene and $R^5$ and $R^6$ are H;

c)




where A is $C_1$-$C_6$-alkylene; $R^5$ and $R^6$ are H and Hy is cyclopentyl or cyclohexyl;

d) cyclopentyl or cyclohexyl;

e) phenyl-$C_1$-$C_6$-alkyl, where the alkyl radical may have an additional phenyl substituent; and

f) $C_2$-$C_6$-alkenyl which is substituted by phenyl.

6. The compound as claimed in claim 1 of the formula I in which $R^3$ is A-B and B is selected from the group consisting of $NR^{11}R^{12}$, $OC_1$-$C_6$-alkyl and OH and A, $R^{11}$ and $R^{12}$ are as defined in claim 1.

7. The compound as claimed in claim 1 of the formula I in which $R^3$ is $NR^7COR^8$, where $R^8$ is selected from the group consisting of -O-$C_1$-$C_4$-alkylphenyl, phenyl and $C_2$-$C_6$-alkenyl which is substituted by phenyl.

8. The compound as claimed in any of the preceding claims where A is $C_1$-$C_2$-alkylene.

9. The compound as claimed in any of the preceding claims where A is ethylidene.

10. The compound as claimed in any of the preceding claims where $R^5$ and $R^6$ are H.

11. The compound as claimed in any of the preceding claims where $R^1$ is halogen-substituted phenyl, $CF_3$-substituted phenyl or $C_1$-$C_6$-alkyl-substituted phenyl.

12. The compound as claimed in any of the preceding claims where $R^2$ is benzyl or $C_1$-$C_6$-alkyl.

13. A pharmaceutical composition, comprising at least one compound as claimed in any of claims 1 to 12, if appropriate together with one or more pharmaceutically acceptable carriers and/or additives.

14. The use of at least one compound as claimed in any of claims 1 to 12 for preparing a pharmaceutical composition for treating disorders associated with a disturbed immune system.

15. A method for treating disorders associated with a disturbed immune system, characterized in that an amount of a compound of the formula I as claimed in any of claims 1 to 12 sufficient to have immunomodulating action and/or to inhibit the release of cytokine is administered to a person in need of such a treatment.